

The automotive industry in Mexico from an FDI perspective: the case of Japanese investment in the Bajío Region

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Abstract

Since Mexico liberalized its economy in the 1980s, the Mexican government actively pursued to attract FDI. This was achieved by transitioning from a closed import-substitution type of development strategy to an open export-promotion strategy where FDI played a central role. Japanese FDI to Mexico showed a first wave of investment after the signing of NAFTA and later after the implementation of the EPA between Mexico and Japan in 2005. This second flow of investment sought to access the North American market (U.S. and Canada), the South American market (Brazil) and the internal market mainly in the automotive industry. The location of the automotive industry investment has clustered in the Bajío region in Mexico with the arrival of major assemblers and automotive suppliers in the states of Guanajuato, Aguascalientes, Queretaro and Jalisco. This region accounts for 51% of total Japanese FDI giving it an important economic dynamism in terms of production, employment, exports and human capital training. Further inclusion of local suppliers is desired to boost positive externalities in the region.

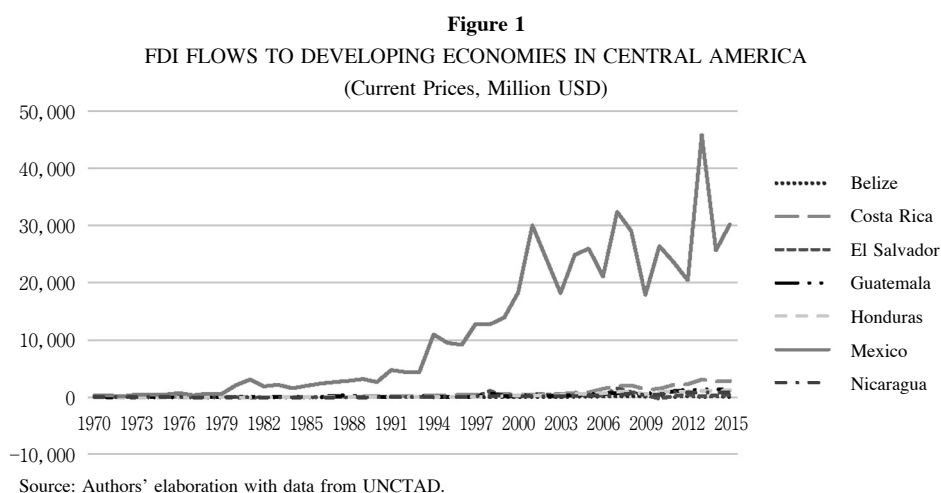
Introduction

Empirical and theoretical economic literature recognizes Foreign Direct Investment (hereafter FDI) as a factor that stimulates economic growth. FDI can be

beneficial to host countries through spillover effects; therefore, Governments from both developed and developing nations seek the positive externalities associated to this type of investment. Mexico was among the Latin American countries that sought to attract FDI to achieve economic growth and development. The federal government implemented public policies in order to attract FDI offering foreign companies tax incentives and subsidies since the 1980s.

The policies implemented in Mexico were effective, compared to other countries in Central America, and the Mexican experience has been recognized as a successful case in studies related to FDI attraction. **Figure 1** shows FDI flows to Central America registered from the period 1970-2015. As it can be seen in the figure, Mexico experienced a rapid FDI inflow growth after the liberalization of its economy in the late 1980s making it one of the most attractive countries for foreign investment in the developing world.

After the debt crisis of 1980s Mexico restructured its economy and policies, transitioning from import-substitution type of development strategy to an export-promotion industrial economy. Restrictions to FDI were relaxed, and this type of investment became the main source of financing during the early 1990s (Gurria, 1994); in the process of liberalization the Mexican government sought strategic partners in other economies that allowed to stimulate trade¹⁾. The signing of the



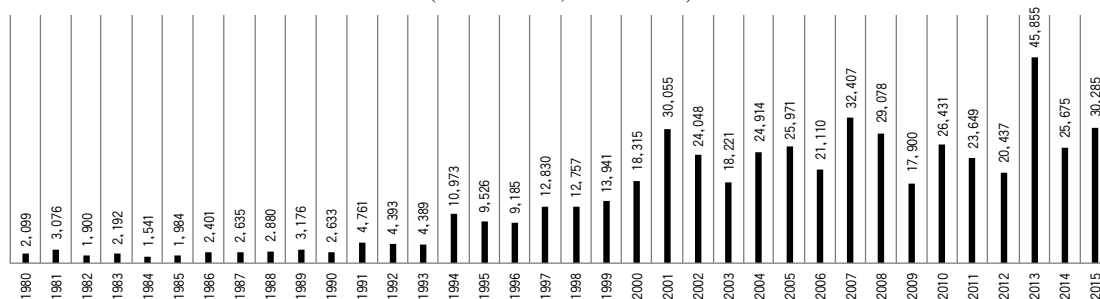
1) Mexico currently has a network of 12 Free Trade Agreements with 46 countries, 32 Reciprocal

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North American Free Trade Agreement (NAFTA) was crucial for promoting Mexico's manufacturing exports that were based on FDI; trade increased between Mexico and the United States and investment flows to Mexico registered an upward trend with the arrival of manufacturing plants to the Mexico-U.S. border.

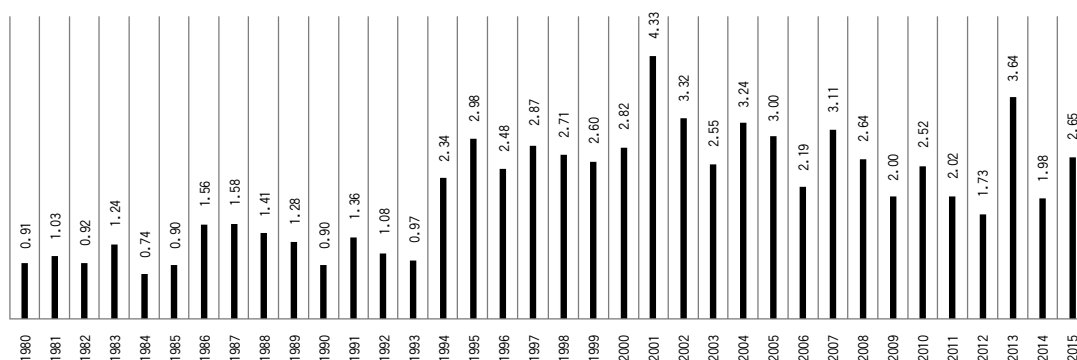
Mexico attracted around USD 2,000 million in FDI in the 1980s but the effects of the new liberalization policies were reflected a decade later, when FDI flows reached USD 18,315 million placing Mexico as the most important recipient of investment flows in Latin America.

Figure 2
FDI FLOWS TO MEXICO
(Current Prices, Million USD)



Source: Authors' elaboration with data from UNCTAD

Figure 3
FDI FLOWS TO MEXICO AS % OF GDP



Source: Authors' elaboration with data from UNCTAD

Investment Promotion and Protection Agreements (RIPPAS) and 9 Trade Agreements (Economic Complementation and Partial Scope Agreements) within the framework of the Latin American Integration Association (ALADI). (Secretariat of Economy (S.E.) of Mexico, <http://www.gob.mx/se/>)

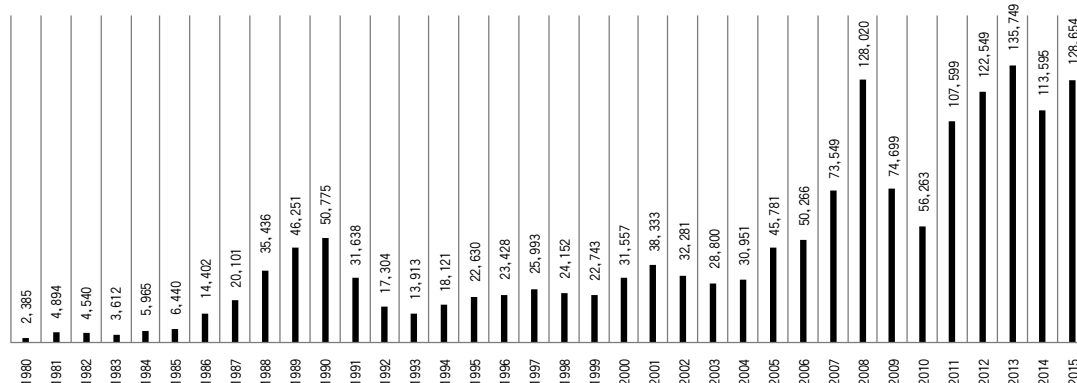
In 2013, the highest amount of FDI was recorded at USD 45,855 million (**Figure 2**). Comparatively, during the beginning of the 1980s, FDI flows accounted for around 1% of the national GDP doubling in 1994, when NAFTA was signed. During the last few years, FDI flows represent between 2% and 3% of GDP (**Figure 3**).

The manufacturing sector has historically been the main receptor of FDI; in particular, the automotive industry captures the greater proportion of this investment, exhibiting growth despite the various financial crises that the country has gone through. The search for business partners has provoked positive impacts on the growth of the sector: first with the signing of NAFTA and years later with the Economic Partnership Agreement (EPA) between Mexico and Japan.

Japanese FDI to Mexico

On the other hand, outflows of Japanese direct investment increased during the 1980s (**Figure 4**). The Plaza accord signed in 1985 led to an appreciation of the Japanese Yen, losing product competitiveness in international markets, predominantly in the United States that led Japanese firms to seek for alternative markets for their exports. NAFTA was one of the key factors that motivated Japan

Figure 4
TOTAL JFDI
(OUTWARD, Million USD)



Source: Authors' elaboration with data from UNCTAD

to sign an EPA with Mexico in 2004 (the first EPA for Japan with a western country); for Japan signing the EPA granted access to North American markets.

Among other benefits, Japan received preferential treatment and access to Mexican markets, protection to Japanese firms investing in Mexico and approval to participate in public government bids. The EPA represented an opportunity for Mexico of market diversification for trade and investment in Asia: a chance to attract investment flows to diverse sectors, to export Mexican products and import high technology products and gaining the benefits of bilateral cooperation; from an FDI perspective, the EPA opened the possibility for Mexican suppliers to join Japanese productive chains.

From 2005, when EPA came into force, Japanese FDI flows to Mexico have increased and are mainly directed towards the automotive sector: in 2003 FDI flows from Japan to Mexico were around USD 140 million, but by the end of 2015 the amount registered was USD 1,329 million²⁾. The investment announced between that period accounts for USD 22.95 billion; however new investment projects were announced for 2016 from Toyota, which may further increase the amount of investment announced in Celaya, Guanajuato. Production of automobiles in Mexico will increase up to 5 million units by 2020, positioning the country as one of the five major auto producers in the world, according to the Secretariat of Economy³⁾.

The arrival of Japanese multinational companies of the automotive sector to Mexico's Bajío region have strengthened the economic relationship between those two countries: from 2009, the number of Japanese companies in Mexico was approximately 400, increasing dramatically to 1,000 in 2017. Besides the growth in investment, bilateral trade flows have increased as well particularly after the entry into force of the EPA (Lugo Sánchez, 2015).

Japan became the fifth largest country in 2005 among developed economies to destine FDI flows to Mexico, preceded by investment from United States, Spain, the Netherlands, the UK and Germany (Dussel Peters, Galindo Paliza, Loria & Mortimore,

2) Secretariat of Economy (S.E.) of Mexico, <https://www.gob.mx/se/>.

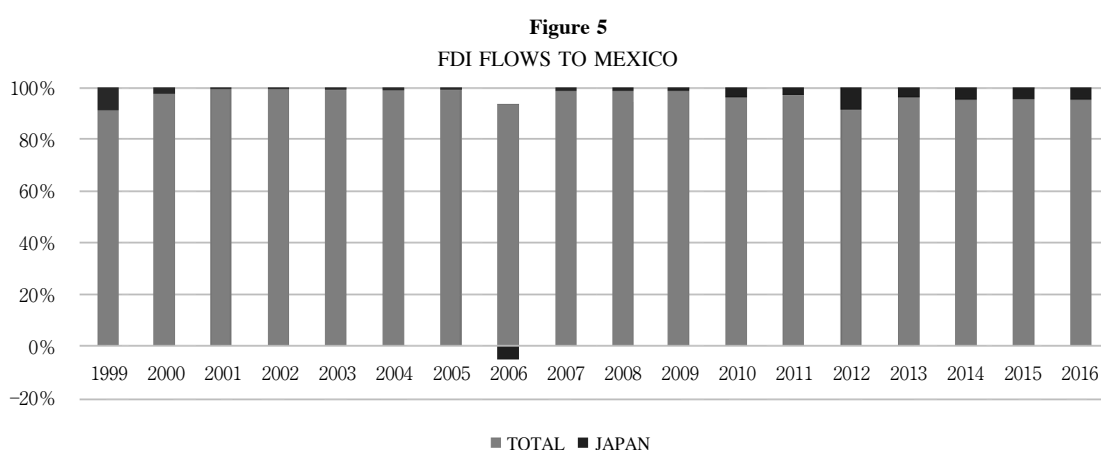
3) <http://www.elfinanciero.com.mx/empresas/toyota-invierte-mil-mdd-para-nueva-planta-en-celaya.html>

2007).

As mentioned previously, Japanese FDI concentrates mainly in the manufacturing industry, with a larger percentage of participation in the automotive and electronics sector of 76.3%. **Figure 5** shows total investment flows from Japan vs total FDI flows to Mexico⁴⁾.

In terms of FDI location, Japanese investors were moving their production plants from the United States to the northern states of Mexico during the second half of the 1990s, however, the arrival of Nissan to the Mexican Bajio region managed to attract more investment to the area, following the establishment of its two plants in the states of Aguascalientes and Morelos, starting a trend location of Japanese FDI.

Among the contributions of Japanese FDI are the training and development of human capital, participation in Mexico's main macroeconomic variables, and, as a result of its involvement with the automotive industry, the establishment of different Information Technology (IT) centers. The Technological Development Center of Nissan is the first of its kind, employing 366 engineers of local origin whose main objective is the development of new technologies to reduce pollution, collaborating closely with their peers in research centers located in United States and Brazil.



Source: Authors' elaboration with data from SE

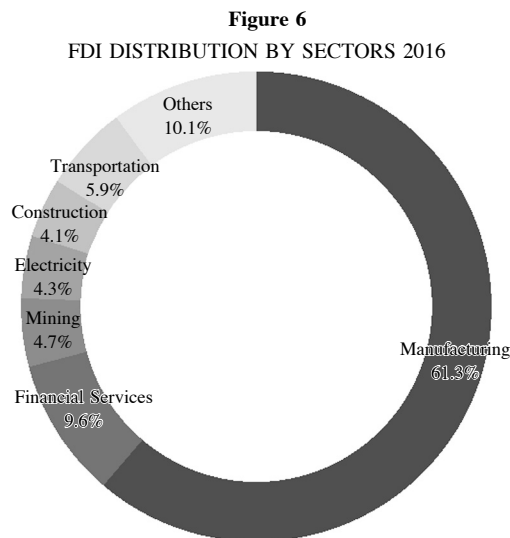
4) 2006 shows a negative percentage of JFDI to Mexico, caused by disinvestment by large transnational companies in Japan, which slowed outward Japanese flows to developed and developing economies, including Mexico.

Japanese Automotive FDI in the Bajío Region.

The manufacturing sector in Mexico traditionally has been the main attractor of FDI. From 1980 to 1988 the percentage of FDI registered around 66% with 12% destined to the automotive sector. From 1989 to 1993 FDI grew at a slower rate registering 28%. On the next period, marked by the signing of NAFTA, FDI flows increased as expected; however, a financial crisis occurred in Asia, Russia and Brazil with financial instability that affected FDI flows to Mexico (Dussel Peters, 2000). Still, the sector of manufacture was a preferred destination for FDI, over agriculture and services. This period the automotive sector attracted around 9.3% of total FDI flows.

FDI distribution by sectors in 2016 is shown in **Figure 6**: Manufactures captured 61% of total FDI received during that year, followed by other sectors and financial services.

According to Kumaran (2008) the growth registered on the automotive industry was a significant effect of FDI, and resulted in strong backward and forward linkages in Mexico's economy. On the other hand, the boost of production in the automotive industry can also be considered as a result of the liberalization trend of

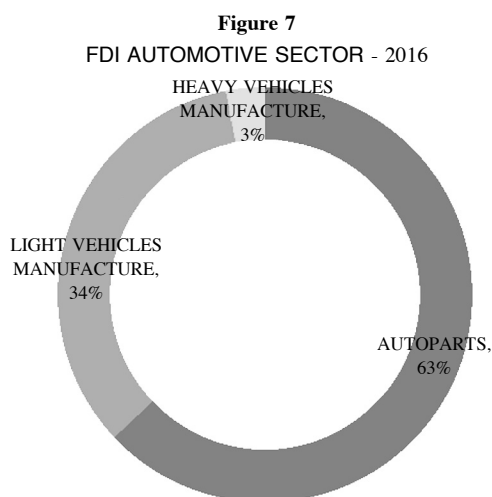


Source: Authors' elaboration with data from SE

the neoliberal model adopted during the decade of 1980s, that pushed economies to open their markets, increasing the global demand of products. Developing economies sought to participate in global markets knowing the benefits of hosting multinational companies: technology transfer, improvement of existing industries, higher rates of employment and export promotions.

Because it is considered a key sector to achieve industrial development in Mexico, the government has closely accompanied the evolution of the automotive industry, through programs known as “decrees” to guide the development of the industry. Those decrees regulated sales and production, approved of the number of companies that could participate in the industry, protected internal market and restricted foreign investment, as well as agreed on the percentage of local contents per unit of production even before the liberalization of the markets started (Brown, 1999).

The automotive and auto parts industry in Mexico has been able to position the country as the fourth largest exporter and seventh largest producer, globally. From 2013 to date, the sector has perceived around USD 23 trillion in new investment. In 2013 Mexico ranked 8th place among the largest manufacturers of vehicles, producing 3 million units in cooperation with the 19 most important car companies installed across 14 states, surpassing two of the countries with longest tradition in



Source: Authors' elaboration with data from SE

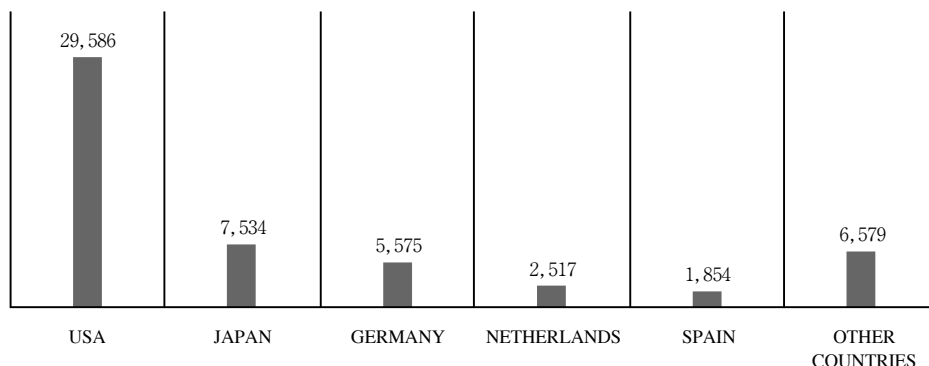
the automotive sector: Spain and France.

The sector has contributed to the country's main economic indicators. The share of GDP participation was 2% during 2013, 15% of manufacturing production, 9% of FDI and 30% of total exports. United States and Canada are the main destination of Mexico's vehicle exports, receiving 77% of domestic production, followed by 13% destined to Latin America, 6% goes to Europe and 3% to Asia. The automotive sector records the highest paid wages in the manufacturing industry, increasing 35% during the period 2006-2013 (ProMexico, 2015).

In the automotive sector, FDI flows distribute as follows: 63% is destined to auto parts production; 34% to light vehicles manufacture and, 3% to heavy vehicles manufacture. During the period of 1999 to 2016 United States participated with 54% of FDI to Mexico, followed by Japan with 15%. Germany's share accounted for 11% while the Netherlands and Spain percentage were 5% and 4%, respectively. Proximity and historical trade relations have favored investment flows from United States to Mexico (**Figure 8**).

Japanese FDI has presence in the northern border states, but has clustered in the Bajío region of the country, located on the west. In particular, the states of Guanajuato, Aguascalientes and Queretaro (where Mazda, Honda, Toyota and Nissan plants are located, see **Figure 9**), and in a lesser proportion, Jalisco, have attracted Japanese companies. The Bajío region is an area where an automotive cluster has

Figure 8
FDI IN THE AUTOMOTIVE SECTOR
(Million USD, 1999-2016)



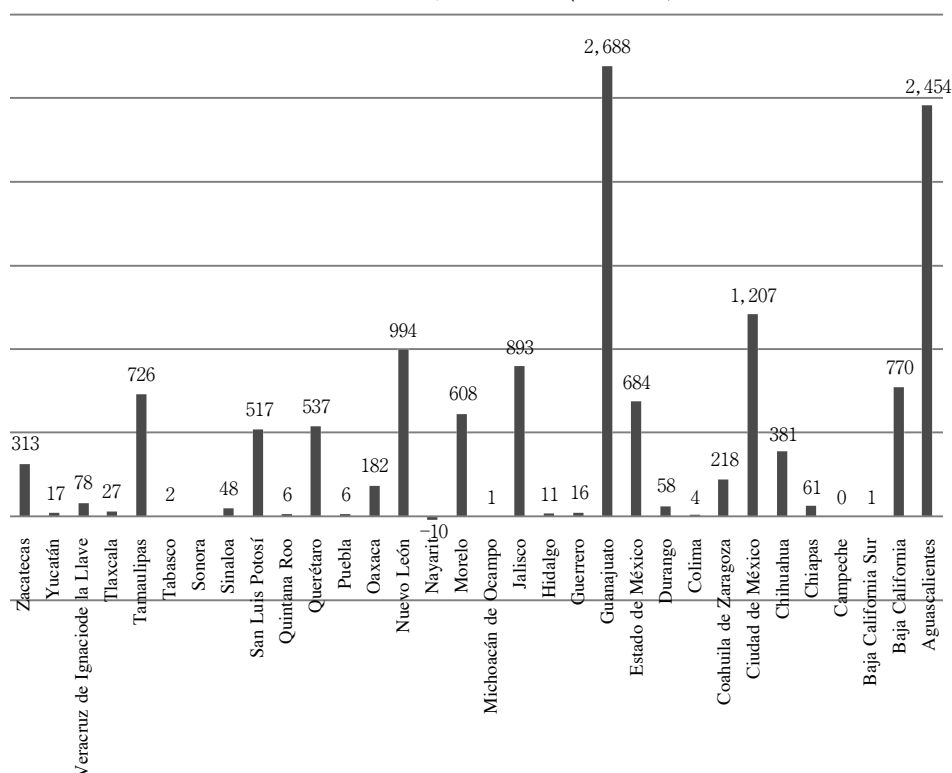
Source: Authors' elaboration with data from S.E.

formed, and is characterized by labor force specialization, road and rail infrastructure that facilitates the transportation of finished products to North American markets, easing the distribution to South America too. In Jalisco, automotive Japanese FDI arrived with Honda, that established a plant located in El Salto.

Of the total investment in the country, the Bajío region is the destination of 51% of Japanese FDI, making it the most dynamic region in terms of FDI from this country. During the last four years (2012-2016), investment from Japan has quintupled having a positive impact on employment, increase of exports and training of human capital (Falck Reyes, 2012).

However, even before the EPA was signed, Japanese investment had positive impacts over employment: according to a study conducted by JETRO-Mexico (2004) in 2004, 3 out of 100 formal jobs were created by companies of Japanese origin

Figure 9
JFDI BY STATE, Million USD (1999-2016)



Source: Authors' elaboration with data from S.E.

established in Mexico.

Figure 9 shows Japanese FDI distribution by State for the years 1999 to 2016. Guanajuato is the main recipient of FDI flows in the Bajío region with USD 2,687 million followed by Aguascalientes (USD 2,453 million), Jalisco (USD 893 million) and Queretaro (USD 536 million). The arrival of this automotive industry investment has allowed the region to establish a solid automotive supply network in the Bajío region, promoting trade and human capital development. However, further inclusion of local suppliers is desired to further generate positive externalities in the region.

Conclusions

As a result of FDI flows to Mexico, it has been possible to establish a solid automotive supply network in the Bajío region, that promotes trade, has a sophisticated operation logistics and, offers highly qualified human resources. On the other hand, Japan supplies capital resources, technology, knowhow and advanced managerial skills; for those reasons, Japan and Mexico are considered complementary partners.

The automotive cluster located in the Bajío region gained momentum with the arrival of Nissan to Aguascalientes in the 1960s that later would translate in an important cluster for the region. Nissan has created a strong distribution, cooperation and supply network during the last five decades, teaming with government officials and academic researchers to solidify their position as a leading company in the automotive industry.

Mexico has become an attractive destination for investment, ranking 8th place globally by offering a stable macroeconomic environment and legal protection to investment, and by becoming an advanced manufactures exporter. Local governments perform an important role, working towards the promotion and improvement of their states to become more competitive and attract FDI through the design and implementation of public policies. A number of universities located in the region participate in the triple helix dynamics, with the support of local governments to create new research centers that would promote technological

development. Further support to local suppliers is desired to further advance positive externalities in the form of technological or knowledge transfer in the region.

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付記

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